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EXAMINER	
SHAHRIAR, CHOWDHURY	
ART UNIT	PAPER NUMBER
2609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/820,776	ST. DENIS ET AL.	
	Examiner	Art Unit	
	Chowdhury M. Shahriar	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-5, and 10-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,052,379 *Iverson et al.* in view of U.S. Patent 5,596,576 to *Milito et al.*

As to **claim 1**, a data traffic policer comprising: A classifier for separating a packet stream in accordance with class; A first bucket for a first traffic class representing a first transmission rate and a first burst capacity; and A second bucket for a second traffic class representing a second transmission rate and a second burst capacity, the second bucket being nested within the first bucket thereby being subordinate to the rate and capacity of the first bucket, with the rate of the second bucket being disabled when a fill condition exists in the first bucket (*Iverson* teaches communicating packetized data over a channel using a dual leaky bucket priority scheme for assigning priorities to ports assigned to channels in a channel bank. A first water level in a first bucket is associated with

an amount of allotted bandwidth unused by the channel unit and a second water level in a second bucket is associated with an amount of unused allotted bandwidth exceeding an overflow level of the first bucket. A priority value is derived from the first water level when the first water level is above zero. The priority value is derived from the second water level when the first water level is below or equal to zero, abstract, FIG 10, column 2, lines 40-55. *Iverson* does not explicitly disclose nested bucket. *Milito* teaches plurality bucket technology, abstract, FIG 6, column 6, lines 45-60. *Iverson* and *Milito* are analogous art because they are from same type of art – dealing leaky bucket. At the time of invention, it would have been obvious to a person of ordinary skilled in the art to make the above modification. The suggestion and motivation would have been to use nested bucket architecture, abstract, column 6, lines 45-60. Therefore, it would have been obvious to combine *Milito* with *Iverson* to address using plurality of bucket in data communications.

As to **claim 10**, a data traffic policer as claimed in claim 1 wherein the second bucket for a second traffic class includes a plurality of buckets for a corresponding plurality of traffic classes (*Iverson* teaches communicating packetized data using two leaky buckets, FIG 11, and column 2, lines 20-25. But *Iverson* does not explicitly disclose plurality bucket. *Milito* teaches plurality bucket technology, abstract, FIG 6, column 6, lines 45-60. *Iverson* and *Milito* are analogous art because they are from same type of art – dealing leaky bucket. At the time of invention, it would have been obvious to a person of ordinary skilled in

the art to make the above modification. The suggestion and motivation would have been to use plural bucket architecture, abstract, column 6, lines 45-60. Therefore, it would have been obvious to combine *Milito* with *Iverson* to address using plurality of bucket in data communications.

As to **claim 2**, a data traffic policer as claimed in claim 1 wherein the bucket is a leaky bucket (*Iverson* teaches communicating packetized data using leaky buckets, FIG 11, and column 2, lines 20-25).

As to **claim 3**, a data traffic policer as claimed in claim 2 wherein traffic class is discard based (*Milito* teaches that their invention follow specific rules to disapprove traffic, FIG 2, and column 2, lines 15-50).

As to **claim 4**, a data traffic policer as claimed in claim 2 wherein traffic class is emission based (*Milito* teaches that their invention follow specific rules to approve traffic, FIG 2, and column 2, lines 15-50).

As to **claim 5**, a data traffic policer as claimed in claim 2 wherein traffic class is discard and emission based (*Milito* teaches that their invention follow specific rules to approve and disapprove traffic, FIG 2, and column 2, lines 15-50).

As to **claim 11**, a data traffic policer as claimed in claim 10 wherein each bucket of the plurality of buckets includes a corresponding capacity (*Iverson* teaches the priority scheme maintains two buckets to track the current bandwidth delivery rate and unused committed bandwidth. The size of the first bucket is dimensioned as twice the configured committed burst capacity for a given User connection. The water level in the first bucket represents the current bandwidth delivery rate for the User, abstract, column 2, lines 40-55, and column 19, lines 1-10).

As to **claim 12**, a data traffic policer as claimed in claim 11 wherein each bucket of the plurality of buckets includes a corresponding rate (*Iverson* teaches the priority scheme maintains two buckets to track the current bandwidth delivery rate and unused committed bandwidth. The size of the first bucket is dimensioned as twice the configured committed burst capacity for a given User connection. The water level in the first bucket represents the current bandwidth delivery rate for the User, abstract, column 2, lines 40-55, and column 19, lines 1-10).

As to **claim 13**, a data traffic policer as claimed in claim 10 wherein the rate comprises a weight (*Iverson* teaches the priority scheme maintains two buckets to track the current bandwidth delivery rate and unused committed bandwidth. The size of the bucket can be considered as the weight. The size of the first bucket is dimensioned as twice (weight) the configured committed burst

capacity for a given User connection. The water level in the first bucket represents the current bandwidth delivery rate for the User, abstract, column 2, lines 40-55, and column 19, lines 1-10).

As to **claim 14**, a method of data traffic policing comprising the steps of: separating a packet stream in accordance with class; representing a first traffic class as a first transmission rate and a first burst capacity; and representing a second traffic class as a second transmission rate and a second burst capacity being subordinate to the rate and capacity of the first traffic class, with the rate of the second traffic class being disabled when a fill condition exists for the first traffic class (Please see similar rejection to claim 1 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 15**, a method as claimed in claim 14 wherein the steps of representing are as leaky buckets (Please see similar rejection to claim 2 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 16**, a method as claimed in claim 15 wherein traffic class is discard based (Please see similar rejection to claim 3 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 17**, a method as claimed in claim 15 wherein traffic class is emission based (Please see similar rejection to claim 4 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 18**, a method as claimed in claim 15 wherein traffic is discard and emission based (Please see similar rejection to claim 5 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 19**, a method as claimed in claim 14 wherein the steps of representing are as token buckets (Please see similar rejection to claim 6 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 20**, a method as claimed in claim 19 wherein traffic class is discard based (Please see similar rejection to claim 8 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 21**, a method as claimed in claim 19 wherein traffic class is emission based (Please see similar rejection to claim 8 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 22**, a method as claimed in claim 19 wherein traffic is discard and emission based (Please see similar rejection to claim 9 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 23**, a method as claimed in claim 14 wherein the step of representing a second traffic class includes representing a plurality of traffic classes (Please see similar rejection to claim 10 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 24**, a method as claimed in claim 23 wherein each bucket of the plurality of buckets includes a corresponding capacity (Please see similar rejection to claim 11 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 25**, a method as claimed in claim 23 wherein each bucket of the plurality of buckets includes a corresponding rate (Please see similar rejection to claim 12 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

As to **claim 26**, a method as claimed in claim 25 wherein the rate comprises a weight (Please see similar rejection to claim 13 where the method is further taught by the apparatus as taught by FIG. 10 of *Iverson*).

3. **Claims 6, 7, 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,052,379 *Iverson et al.* in view of U.S. Patent 5,596,576 to *Milito et al.*, as applied to claim 1, and further in view of U.S. Patent 6,381,214 B1 to *Prasad et al.*

As to **claim 6**, a data traffic policer as claimed in claim 1 wherein the bucket is a token bucket (*Iverson* teaches communicating packetized data using leaky buckets, FIG 11, and column 2, lines 20-25. But *Iverson* does not explicitly disclose token bucket. *Prasad* teaches token bucket technology, abstract, column 3, lines 5-20. *Iverson* and *Prasad* are analogous art because they are from same type of art – dealing leaky bucket. At the time of invention, it would have been obvious to a person of ordinary skilled in the art to make the above modification. The suggestion and motivation would have been to use token in leaky bucket architecture to shape the traffic, abstract, column 3, lines 5-20. Therefore, it would have been obvious to combine *Prasad* with *Iverson* to address using token bucket in data communications.

As to **claim 7**, a data traffic policer as claimed in claim 6 wherein traffic class is discard based (*Milito* teaches that their invention follow specific rules to disapprove traffic, FIG 2, and column 2, lines 15-50).

As to **claim 8**, a data traffic policer as claimed in claim 6 wherein the traffic

class is emission based (*Milito* teaches that their invention follow specific rules to approve traffic, FIG 2, and column 2, lines 15-50).

As to **claim 9**, a data traffic policer as claimed in claim 6 wherein traffic class is discard and emission based (*Milito* teaches that their invention follow specific rules to approve and disapprove traffic, FIG 2, and column 2, lines 15-50).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chowdhury M. Shahriar whose telephone number is 571-270-3318. The examiner can normally be reached on Mon-Fri 8 AM:4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chowdhury Shahriar
Patent Examiner
Art Unit 2609

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CMS

10/8/07

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SUPERVISORY PATENT EXAMINER